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LOGINID:SSPTAJMN1626

PASSWORD:

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* * * * * * * * * * Welcome to STN International * * * * * * * * *

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NEWS 5 JAN 28 MARPAT searching enhanced
NEWS 6 JAN 28 USGENE now provides USPTO sequence data within 3 days of publication
NEWS 7 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 8 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements
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NEWS 18 MAR 31 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19 APR 04 STN AnaVist, Version 1, to be discontinued
NEWS 20 APR 15 WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS 21 APR 28 EMBASE Controlled Term thesaurus enhanced
NEWS 22 APR 28 IMSRESEARCH reloaded with enhancements
NEWS 23 MAY 30 INPAFAMDB now available on STN for patent family searching
NEWS 24 MAY 30 DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS 25 JUN 06 EPFULL enhanced with 260,000 English abstracts
NEWS 26 JUN 06 KOREAPAT updated with 41,000 documents
NEWS 27 JUN 13 USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS 28 JUN 19 CAS REGISTRY includes selected substances from web-based collections
NEWS 29 JUN 25 CA/CAplus and USPAT databases updated with IPC

10/541, 429

07/15/2008

NEWS 30 JUN 30 reclassification data
AEROSPACE enhanced with more than 1 million U.S.
patent records

NEWS 31 JUN 30 EMBASE, EMBAL, and LEMBASE updated with additional
options to display authors and affiliated
organizations

NEWS 32 JUN 30 STN on the Web enhanced with new STN AnaVist
Assistant and BLAST plug-in

NEWS 33 JUN 30 STN AnaVist enhanced with database content from EPFULL

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

| | |
|------------|---|
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Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 13:29:02 ON 15 JUL 2008

FILE 'REGISTRY' ENTERED AT 13:29:27 ON 15 JUL 2008
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 JUL 2008 HIGHEST RN 1034013-75-6
DICTIONARY FILE UPDATES: 14 JUL 2008 HIGHEST RN 1034013-75-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

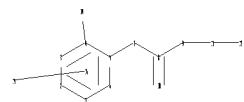
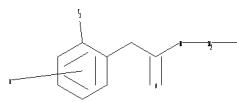
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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10541429\claim 8.str



```

chain nodes :
7 8 9 10 11 12 14 15
ring nodes :
1 2 3 4 5 6
chain bonds :
4-14 5-7 7-8 8-9 8-10 9-11 11-12
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
4-14 8-9 8-10 9-11
exact bonds :
5-7 7-8 11-12
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

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G1:CH3,Et,CF3,MeO,X

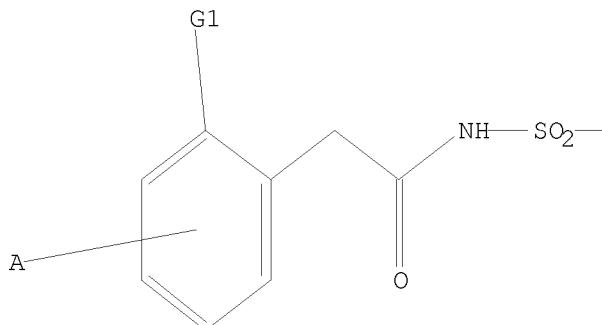
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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 14:CLASS 15:CLASS 16:Atom

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L1 STRUCTURE UPLOADED

=> D
 L1 HAS NO ANSWERS
 L1 STR

G1 Me,Et,CF₃,MeO,X

Structure attributes must be viewed using STN Express query preparation.

=> S L1
 SAMPLE SEARCH INITIATED 13:29:44 FILE 'REGISTRY'
 SAMPLE SCREEN SEARCH COMPLETED - 57 TO ITERATE

100.0% PROCESSED 57 ITERATIONS 3 ANSWERS
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
 BATCH **COMPLETE**
 PROJECTED ITERATIONS: 688 TO 1592
 PROJECTED ANSWERS: 3 TO 163

L2 3 SEA SSS SAM L1

=> S L1 FULL
 FULL SEARCH INITIATED 13:29:51 FILE 'REGISTRY'
 FULL SCREEN SEARCH COMPLETED - 1250 TO ITERATE

100.0% PROCESSED 1250 ITERATIONS 47 ANSWERS
 SEARCH TIME: 00.00.01

L3 47 SEA SSS FUL L1

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 178.36 | 178.57 |

FILE 'CAPLUS' ENTERED AT 13:29:55 ON 15 JUL 2008
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FILE COVERS 1907 - 15 Jul 2008 VOL 149 ISS 3
FILE LAST UPDATED: 14 Jul 2008 (20080714/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

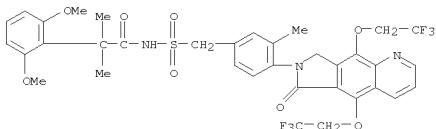
Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=> S L3
L4 8 L3

=> D IBIB ABS HITSTR TOT

L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2008:338556 CAPLUS
 DOCUMENT NUMBER: 148:552726
 TITLE: Structure-activity relationships and pharmacokinetic parameters of quinoline acylsulfonamides as potent and selective antagonists of the EP4 receptor
 and
 AUTHOR(S): Burch, Jason D.; Belley, Michel; Fortin, Rejean; Deschenes, Denis; Girard, Mario; Colucci, John; Farand, Julie; Therien, Alex G.; Mathieu, Marie-Claude; Denis, Danielle; Vigneault, Erika; Levesque, Jean-Francois; Gagne, Sebastien; Wrona, Mark; Xu, Daigen; Clark, Patsy; Rowland, Steve; Han, Yongxin
 CORPORATE SOURCE: Merck Frost Centre for Therapeutic Research, Kirkland, QC, H9H 3L1, Can.
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(6), 2048-2054
 CODEN: BMCL8; ISSN: 0960-894X
 PUBLISHER: Elsevier Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A new series of EP4 antagonists based on a quinoline acylsulfonamide scaffold have been identified as part of the on-going efforts to develop treatments for chronic inflammation. These compd. show subnanomolar intrinsic binding potency towards the EP4 receptor, and excellent selectivity towards other prostanoid receptors. Acceptable pharmacokinetic profiles have also been demonstrated across a series of preclinical species.
 IT 1025402-04-3
 RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (structure-activity relationships and pharmacokinetic parameters of quinoline acylsulfonamides as potent and selective antagonists of EP4 receptor)
 RN 1025402-04-3 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED



IT 439295-57-5P 915191-74-1P 915191-90-1P
 1025401-47-1P 1025402-01-0P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

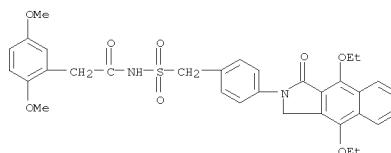
L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 1025401-47-1 CAPLUS
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 Me

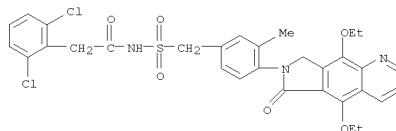
 RN 1025402-01-0 CAPLUS
 CN Benzeneacetamide, N-[{[4-(5,9-diehtoxy-6,8-dihydro-6-oxo-7H-pyrrolo[3,4-g]quinolin-7-yl)-3-methylphenyl]methyl}sulfonyl]-2,6-dimethoxy-
 alpha, alpha-dimethyl- (CA INDEX NAME)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (structure-activity relationships and pharmacokinetic parameters of quinoline acylsulfonamides as potent and selective antagonists of EP4 receptor)
 RN 439295-57-5 CAPLUS
 CN Benzeneacetamide, N-[{[4-(4,9-diehtoxy-1,3-dihydro-1-oxo-2H-benz[f]isoindol-2-yl)phenyl]methyl}sulfonyl]-2,5-dimethoxy- (CA INDEX NAME)



RN 915191-74-1 CAPLUS
 CN Benzeneacetamide, 2,6-dichloro-N-[{[4-(5,9-diehtoxy-6,8-dihydro-6-oxo-7H-pyrrolo[3,4-g]quinolin-7-yl)-3-methylphenyl]methyl}sulfonyl]- (CA INDEX NAME)



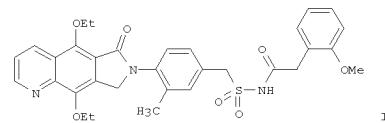
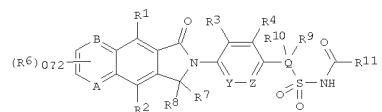
RN 915191-90-1 CAPLUS
 CN Benzeneacetamide, N-[{[4-(5,9-diehtoxy-6,8-dihydro-6-oxo-7H-pyrrolo[3,4-g]quinolin-7-yl)-3-methylphenyl]methyl}sulfonyl]-2,6-dimethoxy- (CA INDEX NAME)

L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:1225142 CAPLUS
 DOCUMENT NUMBER: 145:505342
 TITLE: Preparation of pyrrolo[3,4-g]quinoline derivatives as EP4 receptor antagonists for the treatment of pain
 INVENTOR(S): Burch, Jason; Belley, Michel; Girard, Mario; Farand, Julie; Therien, Alex G.; Han, Yongxin
 PATENT ASSIGNEE(S): Merck Frost Canada Ltd., Can.
 SOURCE: PCT Int. Appl., 67pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 2006122403 | A1 | 20061123 | WO 2006-CA789 | 20060515 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BE, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DO, EC, EE, EG,
GE, GH, GM, HR, ID, IL, IS, JP, KE, KG, KM, KN, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MR, MN, MW, MX,
MZ, NA, NG, NI, NO, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA,
VN, YU, ZA, ZM, ZW | | | | |
| RM: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
RG, KZ, MD, RU, TJ, TN | | | | |
| AU 2006246930 | A1 | 20061123 | AU 2006-246930 | 20060515 |
| CA 2608214 | A1 | 20061123 | CA 2006-2608214 | 20060515 |
| EP 1885722 | A1 | 20080213 | EP 2006-741503 | 20060515 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR | | | | |
| PRIORITY APPLN. INFO.: US 2005-682589P | | | | P 20050519 |

WO 2006-CA789 W 20060515

OTHER SOURCE(S): MARPAT 145:505342
 GI



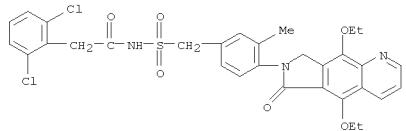
AB Title compds. I [wherein A, B = N or CH, with the proviso that A and B cannot be CH simultaneously; Y, Z = N, N(O) or CR₅; Q = N or C; R₁ - R₆ = H, halo, alkyl, etc.; R₇, R₈ = H or alkyl, or R₇R₈ = O; R₉, R₁₀ = H, alkyl, with the proviso that R₉ is not present when Q is N; R₉ and R₁₀ may link together to form a ring; R₁₁ = alkyl, (un)substituted cycloalkyl, aryl, etc.] and pharmaceutically acceptable salts thereof were prepared as EP4 receptor antagonists. For instance, II was synthesized in multiple steps and had IC₅₀ of 0.47 nM in a EP4 receptor binding assay. Representative I had EC₅₀ values of < 100 nM in a EP4 receptor antagonist assay. Therefore, the invented compds. and their pharmaceutical compns. are useful for the treatment of EP4 mediated diseases or conditions, such as pain.

IT 915191-58-1P 915191-59-2P 915191-72-9P
 915191-74-1P 915191-77-4P 915191-88-7P
 915191-90-1P 915192-08-4P 915192-11-9P
 915192-12-0P 915192-14-2P 915192-15-3P
 915192-18-6P 915192-19-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (drug candidate; preparation of pyrroloquinoline derivs. as EP4 receptor antagonists for the treatment of pain)

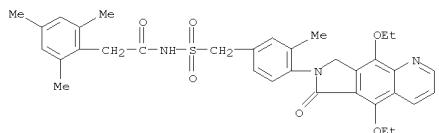
RN 915191-58-1 CAPLUS

CN Benzenacetamide, N-[[(4-(5,9-diethoxy-6,8-dihydro-6-oxo-7H-pyrrolo[3,4-g]quinolin-7-yl)-3-methylphenyl)methylsulfonyl]-2,5-dimethoxy- (CA INDEX NAME)

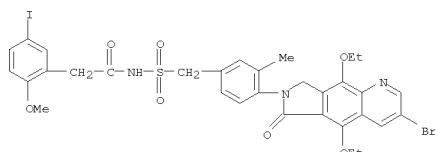
L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 pyrrolo[3,4-g]quinolin-7-yl)-3-methylphenylsulfonyl]- (CA INDEX NAME)



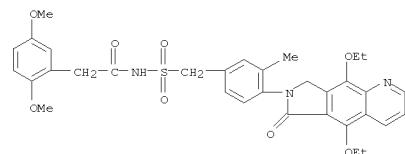
RN 915191-77-4 CAPLUS
CN Benzenacetamide, N-[[(4-(5,9-diethoxy-6,8-dihydro-6-oxo-7H-pyrrolo[3,4-g]quinolin-7-yl)-3-methylphenyl)methylsulfonyl]-2,4,6-trimethyl- (CA INDEX NAME)



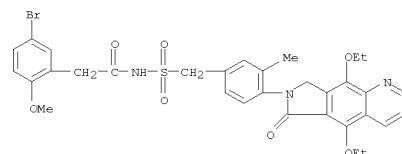
RN 915191-88-7 CAPLUS
CN Benzenacetamide, N-[[(4-(3-bromo-5,9-diethoxy-6,8-dihydro-6-oxo-7H-pyrrolo[3,4-g]quinolin-7-yl)-3-methylphenyl)methylsulfonyl]-5-iodo-2-



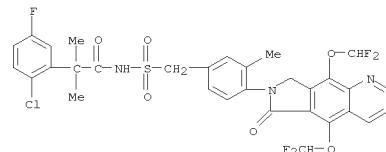
RN 915191-90-1 CAPLUS
CN Benzenacetamide, N-[[(4-(5,9-diethoxy-6,8-dihydro-6-oxo-7H-pyrrolo[3,4-g]quinolin-7-yl)-3-methylphenyl)methylsulfonyl]-2,6-dimethoxy- (CA INDEX NAME)



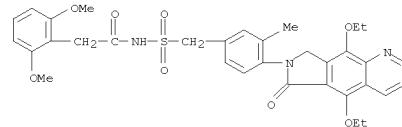
RN 915191-59-2 CAPLUS
CN Benzenacetamide, 5-bromo-N-[[4-(5,9-diethoxy-6,8-dihydro-6-oxo-7H-pyrrolo[3,4-g]quinolin-7-yl)-3-methylphenyl)methylsulfonyl]-2-methoxy- (CA INDEX NAME)



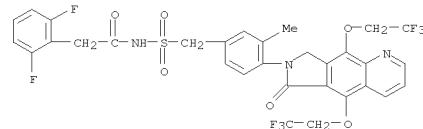
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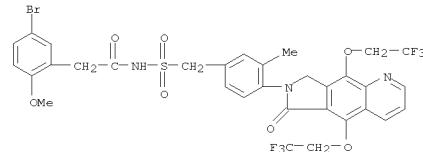
RN 915191-74-1 CAPLUS
CN Benzenacetamide, 2,6-dichloro-N-[[4-(5,9-diethoxy-6,8-dihydro-6-oxo-7H-



RN 915192-08-4 CAPLUS
CN Benzenacetamide, N-[[4-[6,8-dihydro-6-oxo-5,9-bis(2,2-trifluoroethoxy)-7H-pyrrolo[3,4-g]quinolin-7-yl]-3-methylphenyl)methylsulfonyl]-2,6-difluoro- (CA INDEX NAME)



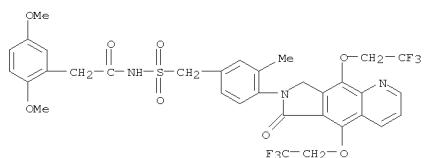
RN 915192-11-9 CAPLUS
CN Benzenacetamide, 5-bromo-N-[[4-[6,8-dihydro-6-oxo-5,9-bis(2,2-trifluoroethoxy)-7H-pyrrolo[3,4-g]quinolin-7-yl]-3-methylphenyl)methylsulfonyl]-2-methoxy- (CA INDEX NAME)



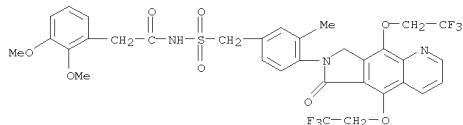
RN 915192-12-0 CAPLUS
CN Benzenacetamide, N-[[4-[6,8-dihydro-6-oxo-5,9-bis(2,2-trifluoroethoxy)-7H-pyrrolo[3,4-g]quinolin-7-yl]-3-methylphenyl)methylsulfonyl]-2,5-dimethoxy- (CA INDEX NAME)

L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

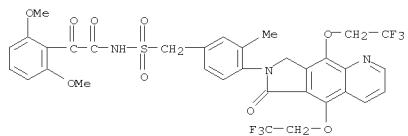
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RN 915192-14-2 CAPLUS

CN Benzenecetamide,
N-[[4-[6,8-dihydro-6-oxo-5,9-bis(2,2,2-trifluoroethoxy)-7H-pyrido[3,4-g]quinolin-7-yl]-3-methoxyphenyl]methylsulfonyl]-2,6-dimethoxy-

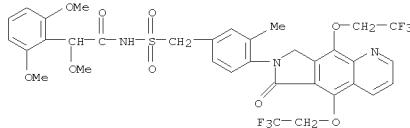
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RN 915192-18-6 CAPLUS

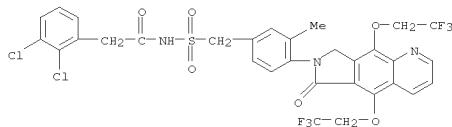
CN Benzenecetamide,
N-[[4-[6,8-dihydro-6-oxo-5,9-bis(2,2,2-trifluoroethoxy)-7H-pyrido[3,4-g]quinolin-7-yl]-3-methoxyphenyl]methylsulfonyl]-L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
 α ,2,6-trimethoxy- (CA INDEX NAME)

(Continued)



RN 915192-19-7 CAPLUS

CN Benzenecetamide, 2,3-dichloro-N-[[4-[6,8-dihydro-6-oxo-5,9-bis(2,2,2-trifluoroethoxy)-7H-pyrido[3,4-g]quinolin-7-yl]-3-methoxyphenyl]methylsulfonyl]- (CA INDEX NAME)



REFERENCE COUNT:

7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

RN 915192-18-6 CAPLUS

CN Benzenecetamide,
N-[[4-[6,8-dihydro-6-oxo-5,9-bis(2,2,2-trifluoroethoxy)-7H-pyrido[3,4-g]quinolin-7-yl]-3-methoxyphenyl]methylsulfonyl]-

L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

ACCESSION NUMBER: 2004675710 CAPLUS

DOCUMENT NUMBER: 141:190512

TITLE: A preparation of 2-arylacetic acid derivatives, useful

INVENTOR(S): Moriconi, Alessio; Allegretti, Marcello; Bertini, Riccardo; Cesta, Maria Candida; Bizzarri, Cinzia; Colotta, Francesco

PATENT ASSIGNEE(S): Dompe' S.p.A., Italy

SOURCE: PCT Int'l. Appl., 46 pp.

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

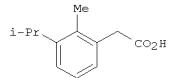
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| WO 2004069782 | A2 | 20040819 | WO 2004-EP1021 | 20040204 |
| WO 2004069782 | A3 | 20040916 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JE, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, RW: BW, GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK, CN 1768026 A 20060503 CN 2004-80008741 20040204 | | | | |
| CA 2511582 A1 20040819 | | | CA 2004-2511582 | 20040204 |
| EP 1590314 A2 20051102 | | | EP 2004-707926 | 20040204 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK, CN 1768026 A 20060503 CN 2004-80008741 20040204 | | | | |
| JP 2006516592 T 20060706 | | | US 2005-541429 | 20050705 |
| US 20060223842 A1 20061005 | | | US 2005-541429 | 20050705 |
| NO 2005004017 A 20050830 | | | US 2005-541429 | 20050830 |
| PRIORITY APFLN. INFO.: EP 2003-2716 | | | EP 2003-2716 | A 20030206 |
| | | | WO 2004-EP1021 | W 20040204 |

OTHER SOURCE(S): MARPAT 141:190512

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INSTANT APPLICATION



AB The invention relates to a preparation of 2-arylacetic acid derivs. of formula

Searched by Jason M. Nolan, Ph.D.

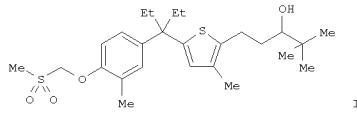
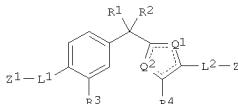
Page 8

L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:610159 CAPLUS
 DOCUMENT NUMBER: 141:174068
 TITLE: Vesicant treatment with (phenylalkyl)thiophenes as vitamin D receptor modulators
 INVENTOR(S): Nagpal, Sunil
 PATENT ASSIGNEE(S): Eli Lilly and Company, USA; Yee, Ying Kwong
 SOURCE: PCT Int. Appl., 496 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| WO 2004063348 | A2 | 20040729 | WO 2004-US6 | 20040107 |
| WO 2004063348 | A8 | 20040930 | | |
| WO 2004063348 | A3 | 20051027 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, ME EP 1587905 | A2 | 20051026 | EP 2004-700549 | 20040107 |
| EP 1587905 | A3 | 20051214 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK US 20060135484 | A1 | 20060622 | US 2005-540667 | 20050624 |
| PRIORITY APPLN. INFO.: | | | US 2003-439575P | P 20030110 |
| | | | WO 2004-US6 | W 20040107 |

OTHER SOURCE(S): MARPAT 141:174068
 GI

L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

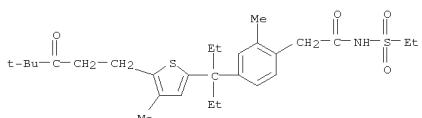


AB The present invention relates to a method of treating or preventing damage to human skin cells by chemical vesicants, such as mustard, by administering non-secosteroidal, title compds. I [wherein R1 and R2 = independently (fluoro)alkyl, or C(R2)2 (un)substituted carbocycle; Q1 and Q2 = C, S, with the proviso that one atom = S and the other atom = C; R3 and R4 = independently H, halo, (fluoro)alkyl, (fluoro)alkoxy, (fluoro)alkylthio, CN, NO2, acetyl, (cyclo)alkenyl, cycloalkyl]; L1 and L2 = independently a bond, (CH2)mCR5, (CH2)mCR5)2, (CH2)C(=O)R5, (CH2)mSO, (CH2)mSO2, (CH2)mNR5, (CH2)mCR5)2, (CH2)C(=O)R5, (CH2)mCH=CH, CHOHCX1, SO2NH, SO2O, SO2CX1, NHCCX1, NHSO, CH2OSO, OSO; m = 0-2; X1 = O, S; R5 = H, (fluoro)alkyl; Z1 and Z2 = independently H, OH, halo, formyl, NO2, CN, (fluoro)phenyl, benzyl, (un)substituted (cyclo)alkyl, (cyclo)alkenyl, acyl, carboxy, carbamoyl, alkoxy, alkylthio, sulfamoyl, (thio)ureido, amino, etc.; with provisos; and pharmaceutically acceptable salts or prodrugs thereof] with vitamin D receptor (VDR) modulating activity. Examples include preps. and bioassays for efficacy and toxicity of representative I. For instance, reaction of 3-[4-(benzylxoy)-3-methylphenyl]-3-[4-methyl-5-(hydroxymethyl)thiophen-2-yl]pentane with PBr3 and LiHMDS, followed by addition of pinacolone gave the 5-(3-oxo-4,4-dimethylpentyl)-4-methylthiophene derivative (82%). Deprotection using Pd/C in EtOH/EtOAc provided the phenol (97%), which was alkylated with methylmercaptomethyl chloride (73%) and oxidized using m-CPBA to afford the 4-(methylsulfonylmethoxy)-3-methylphenyl derivative (33%). Reduction of the ketone using NaBH2 in MeOH yielded the alc. II (quant.). The preferred enantiomer of latter exhibited VDR activity in the ERK-VDR heterodimer assay (EC50 = 40.57 nM) and showed osteoporosis inhibition activity in the osteocalcin (OCN) promoter assay (EC50 = 46.82 nM), while demonstrating

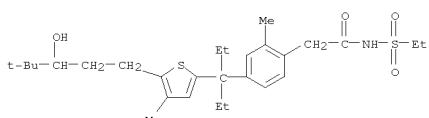
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 low toxicity in the mouse hypercalcemia assay (EC50 = >1000 nM). In addn., results from the keratinocyte proliferation assay (IC50 = 76 nM) and the IL-10 induction assay (IC50 = 26 nM) indicated that the preferred enantiomer of II may also be useful for the treatment of psoriasis, abscesses, and adhesions.

IT 633344-85-1P 633344-86-2P 633344-87-3P 633344-88-4P 633344-89-5P 633344-90-8P 633344-91-9P 633344-92-0P 633344-93-1P 633344-94-2P 633344-95-3P 633344-96-4P 633344-97-5P 633344-98-6P 633344-99-7P 633345-00-3P 633345-01-4P 633345-02-5P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (VDR modulator; preparation of (phenylalkyl)thiophenes as VDR modulators for preventing or treating damage to human skin cells by chemical vesicants)

RN 633344-85-1 CAPLUS
 CN Benzeneacetamide,
 4-[1-[5-(4-dimethyl-3-oxopentyl)-4-methyl-2-thienyl]-1-ethylpropyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)

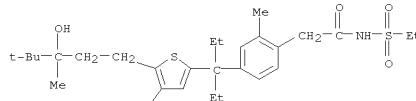


RN 633344-86-2 CAPLUS
 CN Benzeneacetamide,
 4-[1-ethyl-1-[5-(3-hydroxy-4,4-dimethylpentyl)-4-methyl-2-thienyl]propyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)

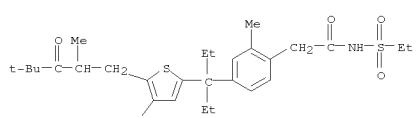


RN 633344-87-3 CAPLUS
 CN Benzeneacetamide, 4-[1-ethyl-1-[5-(3-hydroxy-3,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)

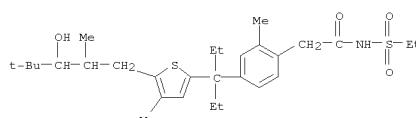
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



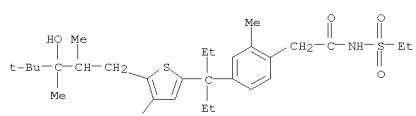
RN 633344-88-4 CAPLUS
 CN Benzeneacetamide,
 4-[1-ethyl-1-(4-methyl-5-(2,4,4-trimethyl-3-oxopentyl)-2-thienyl)propyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)



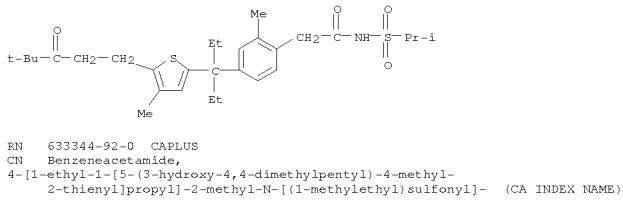
RN 633344-89-5 CAPLUS
 CN Benzeneacetamide, 4-[1-ethyl-1-[5-(3-hydroxy-2,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)



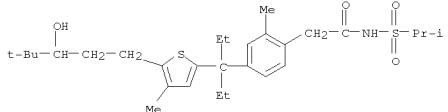
RN 633344-90-8 CAPLUS
 CN Benzeneacetamide,
 4-[1-ethyl-1-[5-(3-hydroxy-2,3,4,4-tetramethylpentyl)-4-methyl-2-thienyl]propyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)



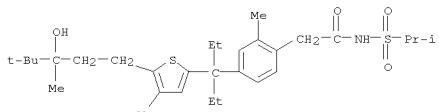
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RN 633344-91-9 CAPLUS
CN Benzenacetamide,
4-[5-(4,4-dimethyl-3-oxopentyl)-4-methyl-2-thienyl]-1-ethylpropyl]-2-methyl-N-(1-methylethyl)sulfonyl- (CA INDEX NAME)



RN 633344-92-0 CAPLUS
CN Benzenacetamide,
4-[1-ethyl-1-[5-(3-hydroxy-4,4-dimethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl-N-(1-methylethyl)sulfonyl- (CA INDEX NAME)

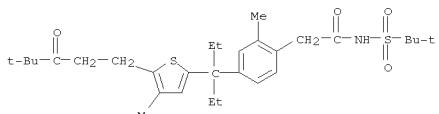


RN 633344-93-1 CAPLUS
CN Benzenacetamide, 4-[1-ethyl-1-[5-(3-hydroxy-3,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl-N-(1-methylethyl)sulfonyl- (CA INDEX NAME)

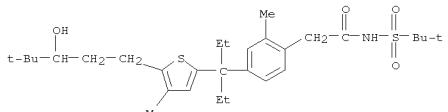


RN 633344-94-2 CAPLUS
CN Benzenacetamide,
4-[1-ethyl-1-[4-methyl-5-(2,4,4-trimethyl-3-oxopentyl)-2-thienyl]propyl]-2-methyl-N-(1-methylethyl)sulfonyl- (CA INDEX NAME)

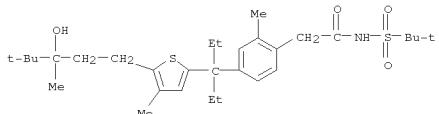
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 633344-98-6 CAPLUS
CN Benzenacetamide, N-(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[5-(3-hydroxy-4,4-dimethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)

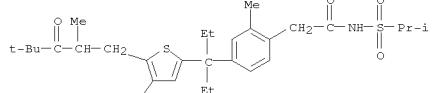


RN 633344-99-7 CAPLUS
CN Benzenacetamide, N-(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[5-(3-hydroxy-3,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)

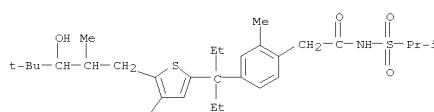


RN 633345-00-3 CAPLUS
CN Benzenacetamide,
N-(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[4-methyl-5-(2,4,4-trimethyl-3-oxopentyl)-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)

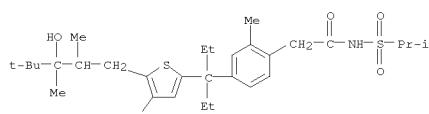
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 633344-95-3 CAPLUS
CN Benzenacetamide, 4-[1-ethyl-1-[5-(3-hydroxy-2,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl-N-(1-methylethyl)sulfonyl- (CA INDEX NAME)

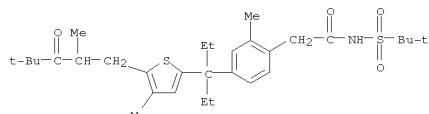


RN 633344-96-4 CAPLUS
CN Benzenacetamide,
4-[1-ethyl-1-[5-(3-hydroxy-2,3,4,4-tetramethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl-N-(1-methylethyl)sulfonyl- (CA INDEX NAME)

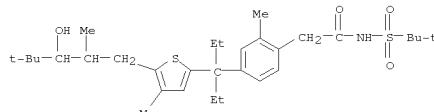


RN 633344-97-5 CAPLUS
CN Benzenacetamide,
N-(1,1-dimethylethyl)sulfonyl]-4-[1-[5-(4,4-dimethyl-3-oxopentyl)-4-methyl-2-thienyl]-1-ethylpropyl]-2-methyl- (CA INDEX NAME)

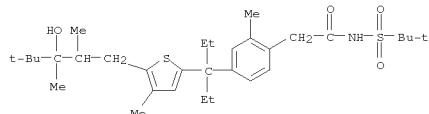
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 633345-01-4 CAPLUS
CN Benzenacetamide, N-(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[5-(3-hydroxy-2,3,4,4-tetramethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)



RN 633345-02-5 CAPLUS
CN Benzenacetamide, N-(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[5-(3-hydroxy-2,3,4,4-tetramethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)



L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:972066 CAPLUS
 DOCUMENT NUMBER: 140:27753

TITLE: Preparation of phenylalkyl thiophene-type vitamin D receptor modulators for treating bone disease, psoriasis and other disorders
 INVENTOR(S): Dahnke, Karl Robert; Gajewski, Robert Peter; Jones, Charles David; Linenbarger, Jared Harris; Lu, Jianliang; Ma, Tianwei; Nagpal, Sunil; Simard, Todd Parker; Yee, Ying Kwong; Bunei, Emilio Enrique; Stites, Ryan Edward

PATENT ASSIGNEE(S): Eli Lilly and Company, USA
 SOURCE: PCT Int. Appl., 504 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

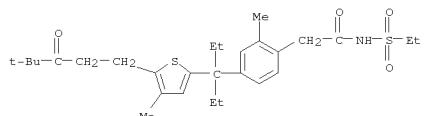
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| WO 2003101978 | A1 | 20031211 | WO 2003-US14539 | 20030522 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, LZ, LK, LR, LS, LT, LV, MA, MD, MG, MN, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, US, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| GW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, ID, IL, LU, MC, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SH, TD, TG | | | | |
| CA 2485503 | A1 | 20031211 | CA 2003-2485503 | 20030522 |
| AU 2003233505 | A1 | 20031219 | AU 2003-233505 | 20030522 |
| BR 2003009983 | A | 20050222 | BR 2003-9983 | 20030522 |
| EP 1511740 | A1 | 20050309 | EP 2003-728782 | 20030522 |
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| CN 1656089 | A | 20050817 | CN 2003-812198 | 20030522 |
| JP 200552348 | T | 20051027 | JP 2004-509669 | 20030522 |
| MX 2004PA11903 | A | 20050331 | MX 2004-PA11903 | 20041129 |
| IN 2004KN01967 | A | 20061103 | IN 2004-KN1967 | 20041221 |
| US 20060287536 | A1 | 20061221 | US 2006-515403 | 20060125 |
| PRIORITY APFLN. INFO.: | | | US 2002-384151P | P 20020529 |
| | | WO 2003-US14539 | | W 20030522 |

OTHER SOURCE(S): MARPAT 140:27753
 GI

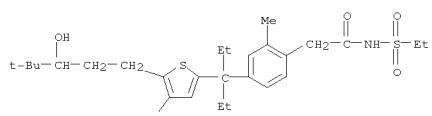
L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 example I for the following assays: RXR-VDR heterodimerization (SaOS-2 cells), VDR co-transfection (Caco-2 cells), osteocalcin promoter, mouse hypercalcemia, keratinocyte proliferation, and IL-10 induction; e.g. one enantiomer of 1-[4-(1-ethyl-1-[5-hydroxymethyl-4-methylthiophen-2-yl]propyl)-2-methylphenoxyl]-3,3-dimethylbutan-2-ol exhibits an EC50 = 2.8 nM in the RXR-VDR assay compared to 3 nM for the control calcipotriol.

IT 633344-85-1P 633344-86-2P 633344-87-3P
 633344-88-4P 633344-89-5P 633344-90-8P
 633344-91-9P 633344-92-0P 633344-93-1P
 633344-94-2P 633344-95-3P 633344-96-4P
 633344-97-5P 633344-98-6P 633344-99-7P
 633345-00-3P 633345-01-4P 633345-02-5P
 RL: PAR (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (drug candidate; preparation of phenylalkyl thiophene-type vitamin D receptor modulators for treating bone disease, psoriasis and other disorders)

RN 633344-85-1 CAPLUS
 CN Benzenacetamide,
 4-[1-(5-(4-dimethyl-3-oxopentyl)-4-methyl-2-thienyl)-1-ethylpropyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)

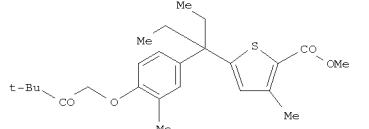
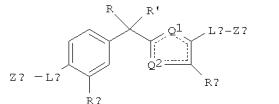


RN 633344-86-2 CAPLUS
 CN Benzenacetamide,
 4-[1-ethyl-1-[5-(3-hydroxy-4,4-dimethylpentyl)-4-methyl-2-thienyl]propyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)



RN 633344-87-3 CAPLUS
 CN Benzenacetamide, 4-[1-ethyl-1-[5-(3-hydroxy-3,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)

L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



AB The present invention relates to novel, nonsecosteroidal, phenylalkyl thiophene compds. (shown as I; variables defined below; e.g.

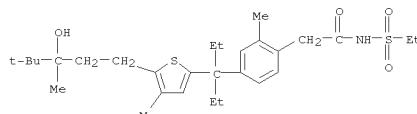
3'-[4-(2-oxo-3,3-dimethylbutoxy)-3-methylphenyl]-3'-(5-(methoxycarbonyl)-4-(methyl)thiophen-2-yl)pentane (II)) with vitamin D receptor (VDR) modulating activity that are less hypercalcemic than 1,25 dihydroxy vitamin D3. These compds. are useful for treating bone disease and psoriasis. For I: R and R' = Cl-C5 alkyl, Cl-C5 fluoroalkyl, or together R and R' form a (un)substituted, (un)saturated carbocyclic ring having

3-8 C atoms; ring atoms Q1 and Q2 = C or S, with the proviso that one atom is S and the other atom is C; RP and RT = H, halo, Cl-C5 alkyl, Cl-C5 fluoroalkyl, -O-Cl-C5 alkyl, -S-Cl-C5 alkyl, -O-Cl-C5 fluoroalkyl, -CN, -NO2, acetyl, -S-C1-C5 fluoroalkyl, C2-C5 alkenyl, C3-C5 cycloalkenyl, and C3-C5 cycloalkyl; LP and LT are divalent linking bond, -(CH2)m(X1)- (X1) = O, S; m = 0-2, -(CH2)m(OH)-, etc.; ZF and ZT = H, Ph, benzyl, fluorophenyl, Cl-C5 alkyl, etc.; addnl. details including provisos are given in the claims. Although the methods of preparation are not claimed,

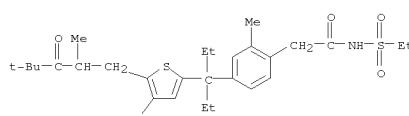
.apprx.180 example preps. are included. For example, II was prepared

in 7 steps starting from 2-hydroxy-5-bromotoluene and tert-butyldimethylsilyl chloride and involving intermediates 2-(tert-Butyldimethylsilyloxy)-5-bromotoluene, 3'-[4-(tert-Butyldimethylsilyloxy)-3-methylphenyl]pentane-3-ol, 3'-[Hydroxy-3-methylphenyl]-3'-(4-(methyl)thiophen-2-yl)pentane, 3'-[Benzoyloxy-3-methylphenyl]-3'-(4-(methyl)thiophen-2-yl)pentane, 3'-[4-(Benzoyloxy)-3-methylphenyl]-3'-(5-(methoxycarbonyl)-4-(methyl)thiophen-2-yl)pentane, and 3'-[4-(Hydroxy-3-methylphenyl)-3'-(5-(methoxycarbonyl)-4-(methyl)thiophen-2-yl)pentane with yields of 97, 72, 95, 92, 54, 100 and 85, resp. Results are tabulated for many of the

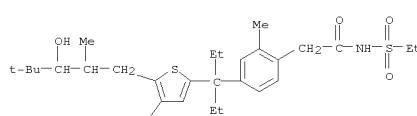
L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



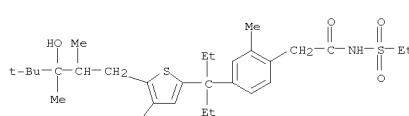
RN 633344-88-4 CAPLUS
 CN Benzenacetamide,
 4-[1-ethyl-1-(4-methyl-5-(2,4,4-trimethyl-3-oxopentyl)-2-thienyl)propyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)



RN 633344-89-5 CAPLUS
 CN Benzenacetamide, 4-[1-ethyl-1-[5-(3-hydroxy-2,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-N-(ethylsulfonyl)-2-methyl- (CA INDEX NAME)

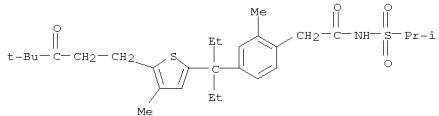


RN 633344-90-8 CAPLUS
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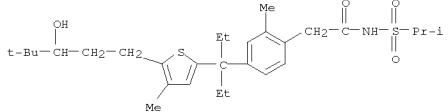


L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

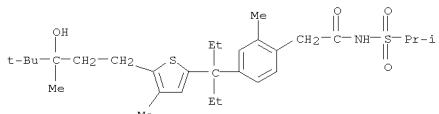
RN 633344-91-9 CAPLUS
 CN Benzenacetamide,
 4-[1-[5-(4,4-dimethyl-3-oxopentyl)-4-methyl-2-thienyl]-1-ethylpropyl]-2-methyl-N-[(1-methylethyl)sulfonyl]- (CA INDEX NAME)



RN 633344-92-0 CAPLUS
 CN Benzenacetamide,
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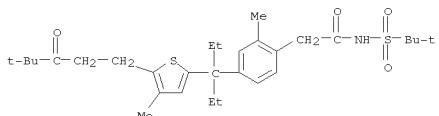


RN 633344-93-1 CAPLUS
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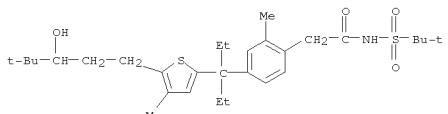


RN 633344-94-2 CAPLUS
 CN Benzenacetamide,
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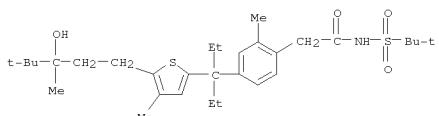
L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 633344-98-6 CAPLUS
 CN Benzenacetamide, N-[(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[5-(3-hydroxy-4,4-dimethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)

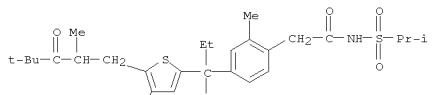


RN 633344-99-7 CAPLUS
 CN Benzenacetamide, N-[(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[5-(3-hydroxy-3,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)

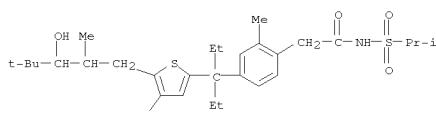


RN 633345-00-3 CAPLUS
 CN Benzenacetamide,
 N-[(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[4-methyl-5-(2,4,4-trimethyl-3-oxopentyl)-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)

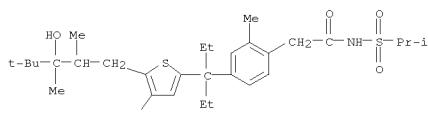
L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 633344-95-3 CAPLUS
 CN Benzenacetamide, 4-[1-ethyl-1-[5-(3-hydroxy-2,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl-N-[(1-methylethyl)sulfonyl]- (CA INDEX NAME)

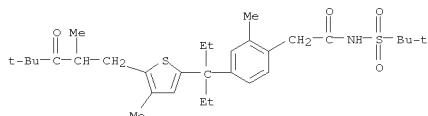


RN 633344-96-4 CAPLUS
 CN Benzenacetamide,
 4-[1-ethyl-1-[5-(3-hydroxy-2,3,4,4-tetramethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl-N-[(1-methylethyl)sulfonyl]- (CA INDEX NAME)

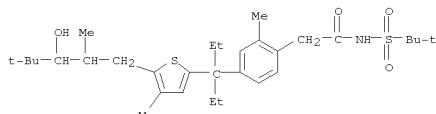


RN 633344-97-5 CAPLUS
 CN Benzenacetamide,
 N-[(1,1-dimethylethyl)sulfonyl]-4-[1-[5-(4,4-dimethyl-3-oxopentyl)-4-methyl-2-thienyl]-1-ethylpropyl]-2-methyl- (CA INDEX NAME)

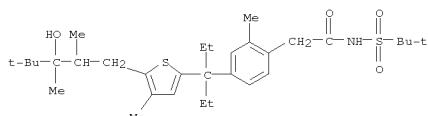
L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 633345-01-4 CAPLUS
 CN Benzenacetamide, N-[(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[5-(3-hydroxy-2,4,4-trimethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)



RN 633345-02-5 CAPLUS
 CN Benzenacetamide, N-[(1,1-dimethylethyl)sulfonyl]-4-[1-ethyl-1-[5-(3-hydroxy-2,3,4,4-tetramethylpentyl)-4-methyl-2-thienyl]propyl]-2-methyl- (CA INDEX NAME)



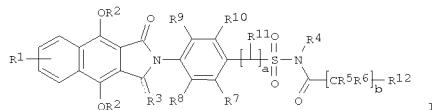
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L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:487528 CAPLUS
 DOCUMENT NUMBER: 137:63173
 TITLE: Preparation of benzo[f]isoindoles which bind to the EP4 receptor
 INVENTOR(S): Giblin, Gerard Martin Paul; Jones, Haydn Terence; Mason, Andrew McMurtie; Miller, Neil Derek; Roomans, Susan; Shanahan, Stephen Edward; Walker, Ann Louise
 PATENT ASSIGNEE(S): Glaxo Group Limited, UK
 SOURCE: PCT Int. Appl., 44 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

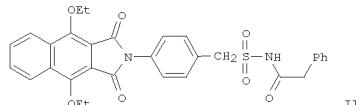
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------------|-----------------|----------|
| WO 2002050032 | A1 | 20020627 | WO 2001-GB5676 | 20011220 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MZ, NC, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TQ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| GW: GH, GM, KE, LS, MW, MO, SD, SL, SZ, TZ, UG, EM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LV, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GM, ML, MR, NE, SN, TD, TG | | | | |
| AU 2002016218 | A | 20020701 | AU 2002-16218 | 20011220 |
| EP 1351934 | A1 | 200301015 | EP 2001-271355 | 20011220 |
| EP 1351934 | B1 | 20070829 | | |
| R: AT, BE, CH, DE, DK, ES, FI, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| JP 2004517099 | T | 20040610 | JP 2002-551529 | 20011220 |
| AT 371645 | T | 20070915 | AT 2001-271355 | 20011220 |
| ES 2230093 | T3 | 20080216 | ES 2001-271355 | 20011220 |
| US 20040102508 | A1 | 20040527 | US 2004-450891 | 20040130 |
| US 6924297 | B2 | 20050802 | | |
| PRIORITY APFLN. INFO.: | | GB 2000-31302 | A 20001221 | |
| | | WO 2001-GB5676 | W 20011220 | |

OTHER SOURCE(S): MARPAT 137:63173
 GI

L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



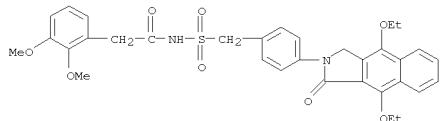
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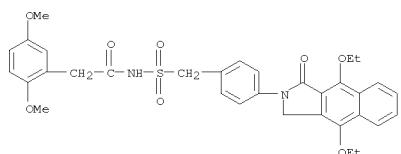
II

AB The title compds. [I; a = 0-1; b = 0-3; R1 = H, halo, alkyl, etc.; R2 = alkyl; R3 = H, O; R4 = H, alkyl; R5, R6 = H, halo, alkyl; or R5 and R6 are taken together to form a cyclopropyl ring; R7-R10 = H, alkyl, alkoxy, etc.; R11 = H, OH, halo, etc.; R12 = H, alkyl, Ph, etc.] which bind with high affinity to the EP4 receptor and are of use in the treatment of prevention of conditions such as a pain, inflammatory, immunol., bone, neurodegenerative or renal disorder, were prepared E.g., a multi-step synthesis of II which showed a pKi of 7.0 or greater at EP4 receptors, was given.
 IT 439295-55-3D 439295-57-5P 439295-60-0P
 439295-90-6P 439295-93-9P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 RN 439295-55-3 CAPLUS
 CN Benzeneacetamide, N-[[[4-(4,9-dieethoxy-1,3-dihydro-1-oxo-2H-benz[f]isoindol-2-yl)phenyl]methyl]sulfonyl]-2,5-dimethoxy- (CA INDEX NAME)

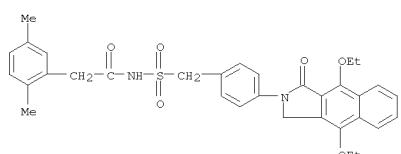
L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 439295-57-5 CAPLUS
 CN Benzeneacetamide, N-[[[4-(4,9-dieethoxy-1,3-dihydro-1-oxo-2H-benz[f]isoindol-2-yl)phenyl]methyl]sulfonyl]-2,5-dimethoxy- (CA INDEX NAME)

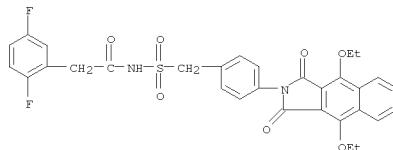


RN 439295-60-0 CAPLUS
 CN Benzeneacetamide, N-[[[4-(4,9-dieethoxy-1,3-dihydro-1-oxo-2H-benz[f]isoindol-2-yl)phenyl]methyl]sulfonyl]-2,5-dimethyl- (CA INDEX NAME)

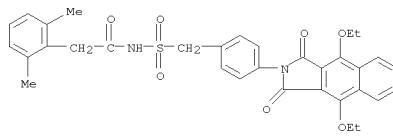


RN 439295-90-6 CAPLUS
 CN Benzeneacetamide, N-[[[4-(4,9-dieethoxy-1,3-dihydro-1-oxo-2H-benz[f]isoindol-2-yl)phenyl]methyl]sulfonyl]-2,5-difluoro- (CA INDEX NAME)

L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 439295-93-9 CAPLUS
 CN Benzeneacetamide, N-[[[4-(4,9-dieethoxy-1,3-dihydro-1-oxo-2H-benz[f]isoindol-2-yl)phenyl]methyl]sulfonyl]-2,6-dimethyl- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
(methylsulfonyl)- (CA INDEX NAME)

